**Video production can be used in science instruction to:**

* Record the process of conducting experiments or procedures and allows for “repeats with perfect consistency” of them for review purposes.
* Record the observation of natural events (e.g.) cycles, patterns, and behavior of organisms, etc.
* Make data analysis and lab report write-ups easier and more accurate through video review.
* Demonstrate the steps of the scientific method.
* Record interviews with scientists or experts on particular subjects or in specific scientific fields.
* Allow sharing of data, observations, and experiments between classes or cadres of students and/or with scientific experts anywhere in the world through the use of video conferencing technology.
* To point out tiny discrete details of objects or organism by using a camera with telephoto lens hooked to monitor as a magnifying glass or low power microscope.
* Make observations or processes clearer and more evident to the viewer by using features such as freeze frame, time lapse, and stop action animation.

**Using basic editing software complements the science video production process in the following ways:**

* Allows the teacher or student to record long periods of observation or complicated experiments and select only those video segments necessary to summarize an event and accurately share conclusions with others.
* Allows the combination of “master shots” which enable the viewer to see an overall context of an event, with close-ups and extreme close-ups, that bring details to attention and allow subjects to be viewed from multiple angles.
* Makes it easy to add titles, labels, and appropriate transition effects to observations and allows the insertion of graphs, diagrams, illustrations, etc. into the video sequence, all to make a process easier to understand.
* Allows “mash-ups” of different pre-produced works (with copyright permissions) to create a work which suits the unique purposes of the teacher or student.
* Allows the insertion of pre-produced segments from KET electronic field trips and documentaries, KET EncycloMedia, and other works (that have copyright permissions or are common source materials) into productions containing original footage created by the teacher or student.
* Allows students to create comprehensive multimedia assignments that incorporate all aspects of their scientific inquiry such as their observations, data, processes, experiments, small group work and conclusions.
* Allows teachers to create instructional video tutorials that can be placed at learning centers for students to view when working independently.